PSIDIUM CAULIFLORUM (MYRTACEAE), A NEW SPECIES FROM BAHIA, BRAZIL

Leslie R. Landrum

School of Life Sciences
Arizona State University
Tempe, AZ 85287-4501, U.S.A.
les.landrum@asu.edu

Marcos Sobral

Departamento de Botanica UFMG
Caixa Postal 486, 31270-901
Belo Horizonte, MG, BRASIL
sobral@ufmg.br

ABSTRACT

Psidium cauliflorum, from the Brazilian state of Bahia, is described and illustrated. It differs from all other species of *Psidium* in having its flowers borne in clusters on older branches and trunks. It may belong to a complex of species including *P. oligospermum*, *P. sartorianum*, *P. glaziovianum*, *P. schenckianum*, and perhaps *P. appendiculatum*.

RESUMO

Psidium cauliflorum, uma nova espécie do estado da Bahia, Brasil, é descrita e ilustrada. Essa espécie, distinta das demais do gênero pelas inflorescências aglomeradas em ramos velhos e troncos, é possivelmente relacionada ao complexo que inclui *P. oligospermum*, *P. sartorianum*, *P. glaziovianum*, *P. schenckianum*, e talvez *P. appendiculatum*.

Psidium L. (Myrtaceae) is a genus of at least 50 and perhaps as many as 100 species (McVaugh 1968) with a natural range from Mexico and the Caribbean to Uruguay and northern Argentina on the American continents and extending to some east Pacific islands (e.g., Galapagos). *Psidium* is distinguished from other genera by a combination of floral and seed characters discussed in Landrum and Sharp (1989) and Landrum (2003). *Psidium cauliflorum* appears to belong to a group of species including *P. oligospermum* DC., *P. sartorianum* (O. Berg) Niedenzu, *P. glaziovianum* Kiaerskou, *P. schenckianum* Kiaerskou, and perhaps *P. appendiculatum* Kiaerskou. These species have brochidodromous leaf venation with dendritic tertiaries. The calyx is generally closed or nearly closed in the flower bud and they often have wart-like to flange-like apical appendages on the calyx (but this character is not present in *P. cauliflorum*). The seeds are 3–6 mm long with rounded edges and few (5–12) per fruit. Ovules are usually less than 30 per locule. The limits between widespread and variable *P. sartorianum* and *P. oligospermum*, which is restricted to Bahia, are still problematic and require more study. We believe that *Psidium oligospermum* and *P. schenckianum* frequently hybridize based on herbarium specimens and field observations. All of these species (except perhaps *P. sartorianum*) grow in Bahia and are sometimes endemic to that state.

Psidium cauliflorum Landrum & Sobral, sp. nov. (**Fig. 1**). TYPE: BRAZIL. BAHIA: mun. Cachoeira, Morro Belo, Vale dos Rios Paraguaçu e Jacuipe, 39°05'W, 12°32'S, 40–100 m, Dec 1980 (fl), *Grupo Pedra do Cavalo 955* (HOLOTYPE: HRB, =ASU, BHCB photos; ISOTYPES: ALCB (2 sheets),= ASU, BHCB photos, RB).

Haec species *Psidio sartoriano* primo aspectu similis, flores fasciculati, cauliflori differt. Arbor 3–5.5-metralis; folia elliptica, vel ovalia, 2.7–6.8 × 1–3 cm, 1.8–2.6 plo longiora quam latiora; peduculo 1–9 mm; calyx ante anthesin clausus, sub anthesi irregulariter fissus.

Tree 3–5.5 m high, sparsely to densely pubescent on young growth; hairs rusty brown to whitish, mostly erect or spreading, up to ca. 1 mm long; young twigs terete to slightly compressed, densely to moderately pubescent, the bark reddish brown to gray, the older

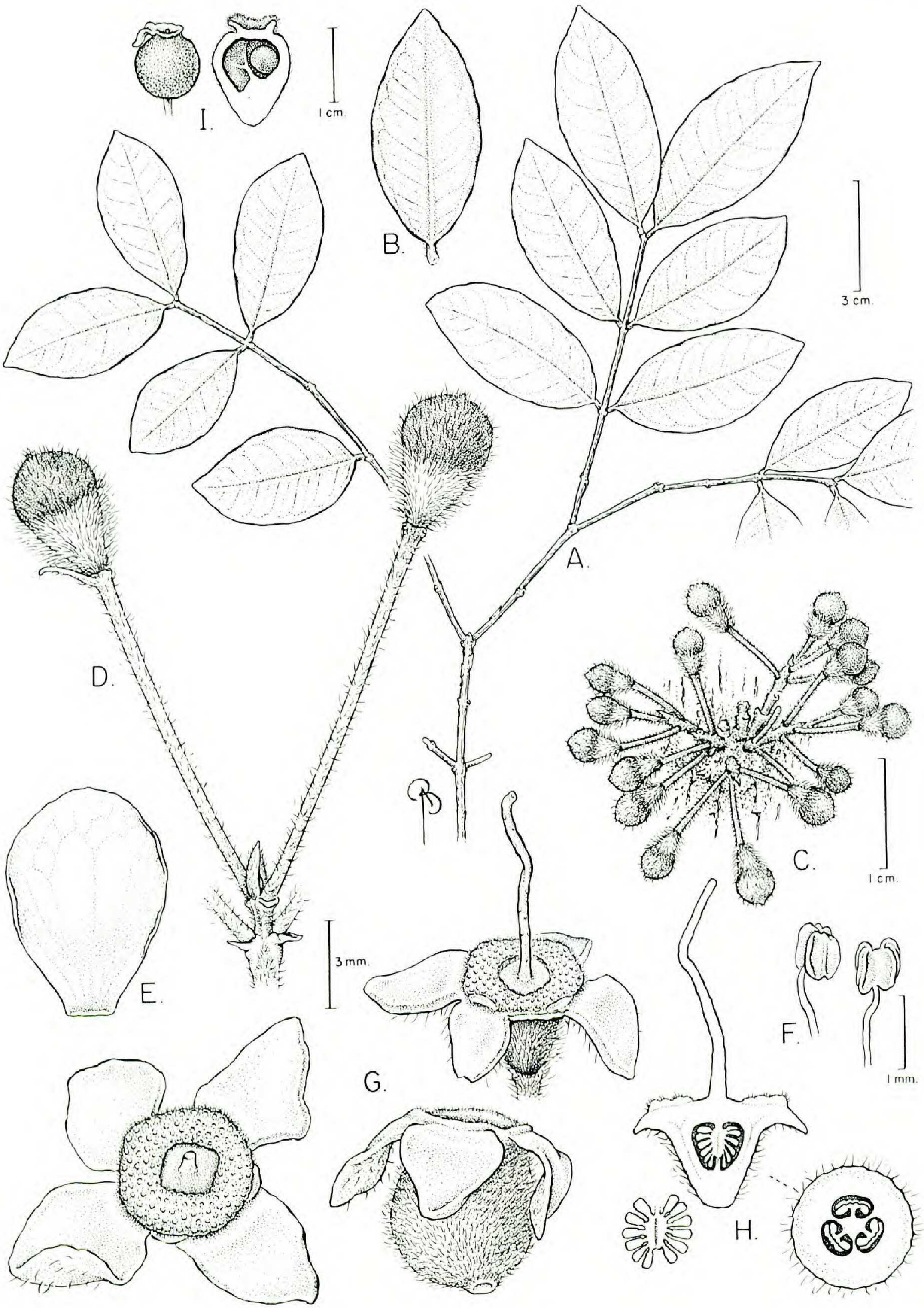

FIG. 1. A–B, *Psidium cauliflorum*. **A.** young branch and leaves. **B.** upper surface of single leaf. **C.** cauliflorous inflorescence. **D.** portion of inflorescence with two closed buds. **E.** detached petal. **F.** anthers. **G.** remnants of flowers and young fruit after stamens and petals have fallen. **H.** dissected ovary showing ovary locules, placentation, and uniseriate ovules. **I.** fruit and single seed. (A & I, *Grupo Pedra do Cavalo 326*, ALCB; C, *Grupo Pedra do Cavalo 955*, HRB, the holotype; D–H, *Queiroz et al. 1742*, ASU). Drawn by Bobbi Angell.

twigs gray, glabrous, the bark somewhat flaky. **Leaves** elliptic to oval, 2.7–6.8 cm long, 1–3 cm wide, 1.8–2.6 times as long as wide, moderately to sparsely puberulent (or more densely so along midvein), glabrescent with age; apex acute; base rounded to cuneate; petiole channeled, densely to sparsely pubescent to glabrescent, 2–3 mm long, 0.5–1 mm wide; midvein impressed proximally to nearly flat distally above, prominent below, the venation brochidodromous, the lateral veins slightly raised and visible above or obscure, 6–9 pairs leaving midvein at an angle of ca. 45 degrees, the marginal vein arching between laterals, equalling them in prominence, running ca. 1–1.5(–3) mm from margin, the tertiary veins forming a dendritic pattern that arises from the marginal vein, scarcely to clearly visible; blades subcoriaceous, drying reddish brown to grayish, densely glandular beneath. **Flower buds** pyriform, 4–6 mm long, densely pubescent on hypanthium, sparsely so on calyx, borne on older stems in clusters of as many as 20, apparently appearing at the same point season after season; peduncles uniflorous to triflorous, 1–9 mm long, ca. 0.6 mm wide, sparsely to densely pubescent, sometimes borne on short bracteate shoots, the branches of dichasia ca. 3 mm long; bracteoles linear to narrowly lanceolate, ca. 1–1.5 mm long, caducous before anthesis; calyx closed except for an apical pore, with hairs sometimes protruding from pore, tearing irregularly at anthesis; petals obovate to suborbicular, ca. 7 mm long, glabrous or with cilate margins; hypanthium obconic, 2–3 mm long; disk ca. 3.5 mm across at anthesis (5 mm in fruit), pubescent; stamens ca. 6 mm long, 150–190; anthers ca. 0.3 mm long, with a terminal gland and usually 2 other glands in the connective; style ca. 8 mm long, glabrous; ovary 3-locular; ovules 7–20 per locule, uniseriate on each lamella of a slightly peltate placenta. **Fruit** 1–2 cm in diam.; seeds few, ca. 6 mm long.

Only five collections have been made of *Psidium cauliflorum* so little is known of this very distinctive, but rare species. It has been collected flowering in June, July, October, and December and probably fruits shortly afterward as is normally the case in *Psidium*. De Queiroz et al. report that it grows in "floresta estacional," that is, temporarily deciduous dry forests.

PARATYPES: BRAZIL. BAHIA: mun. Cachoeira, Estaçao da Mata, Vale dos Rios Paraguaçu e Jacuipe, 39°05'W, 12°32'S, 40–120 m, Jul 1980 (fl, fr), *Grupo Pedra do Cavalo 407* (ALCB), Jun 1980 (fl, fr), *Grupo Pedra do Cavalo 326* (ALCB), Oct 1980 (fl), *Grupo Pedra do Cavalo 814* (ALCB, CEPEC); mun. Feira de Santana, 11 km NW de Jaguara, Fazenda Monte Verde, floresta estacional, 320 m, 21 Jul 1987 (fl), *L. P. de Queiroz, Lemos & Lôbo 1742* (ASU).

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